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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,696	02/16/2001	Thomas G. Anderson	010-00-012	3895

7590 06/30/2004

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EXAMINER	
TRAN, MYLINH T	

ART UNIT	PAPER NUMBER
2174	7

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/785,696	ANDERSON, THOMAS G.	
	Examiner	Art Unit	
	Mylinh T Tran	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Amendment filed 03/12/04*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's Amendment filed 03/12/04 has been entered and carefully considered. Claims 22-23 have been added. However, limitations of the new claims have not been found to be patentable over the prior art of record, therefore, claims 1-23 are rejected under the same ground of rejection as set forth in the Office Action mailed 12/24/03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg [US. 6,259,382] in view of Snibbe et al. [US. 6,496,200].

As to claims 1, 6, 8, 14, 15, 16, 20 and 21, Rosenberg discloses determining if a user-positioned cursor is within a threshold distance (column 6, lines 50-65); applying a force to the cursor and communicating the force to the user (column 3, line 55 through column 4, line 17 and column 7, lines 17-32); determining an input responsive force

applied by the user to the input device (column 4, lines 18-63 and column 8, lines 40-65); changing the portion of the item displayed, wherein the rate of change is determined from the input responsive force (column 7, lines 31-65); applying a feedback force to a user input device resisting motion of the haptic cursor toward the nearest end (column 7, line 40 through column 8, line 20), and determining the magnitude of a force applied by the user in opposition to said feedback force (column 9, line 30 through column 10, line 35), and scrolling the display of the document in the direction according to the nearest edge at a rate determined from the magnitude of the user-applied force (column 4, lines 38-65 and column 21, line 50 through column 22, line 20); determining if the user indicates a transition into the control zone, and if so, then determining if the user positions a cursor near a boundary of the control zone, and if so, then determining an input force applied by the user to an input device and changing the display according to the direction and magnitude of the input force (column 7, line 40 through column 8, line 20); determining if the user indicates a transition out of the control zone, and if so, then providing interaction according to an application associated with the document (column 21, line 1 through column 22, line 18). The differences between Rosenburg and the claim are displaying a portion of the item; a haptic boundary, Providing a scrolling zone portion of the haptic space, said portion disposed near an edge of the display of the document. It would have been obvious to one of ordinary skill in the

art, having the teachings of Rosenburg and Snibbe et al. before them at the time the invention was made to modify force feedback taught by Rosenburg to include the hapic interface of Snibbe et al., in order to reduce the requirement for visual attention for control of scrolling of the display as taught by Snibbe et al.

As to claim 2, Rosenburg also discloses changing the portion of the item displayed comprises changing the display to correspond to a portion adjacent the previous portion in the direction of the boundary (column 7, lines 15-55).

As to claim 3, Snibbe et al. shows the item is a computer representation of a document (column 3, line 61 through column 4, line 40).

As to claim 4, Rosenburg also shows the rate of change increases with increasing input responsive force (column 9, line 30 through column 10, line 15).

As to claim 5, Snibbe et al. provides scrollable boundaries correspond to the top and bottom of the display, and wherein scrolling in the direction of the top boundary is disabled when the top of the document is displayed, and wherein scrolling in the direction of the bottom boundary is disabled when the bottom of the document is displayed (column 4, line 46-65 and column 5, lines 31-63).

As to claims 7 and 9, Rosenburg also provides the rate of scrolling is determined from the magnitude of the user force (column 7, lines 15-55).

As to claim 10, Rosenburg demonstrates the control portion is activated responsive to direction of the user (column 46, lines 19-48).

As to claim 11, while Snibbe et al. demonstrates hapic interface, Rosenburg determining if a user-positioned cursor is within the control portion comprises moving the cursor responsive to user control of an input device, and determining if such movement moves the cursor within the control portion (column 45, lines 8-45).

As to claim 12, Rosenburg discloses if a user-positioned cursor is within the control portion comprises detecting an indication from the user to move the cursor into the control portion (column 11, lines 31-57).

As to claim 13, Snibbe et al. also discloses providing a control portion comprises providing haptic boundaries separating the control portion from the remainder of the haptic space (column 6, lines 7-55).

As to claim 17-19, Rosenburg teaches having stored thereon computer-executable instructions for performing the method.

As to claims 22 and 23, the claim is analyzed as previously discussed with respect to claim 1 except for the feature of X, Y and Z coordinates and an active region defined by X, Y and Z coordinates. Rosenberg shows it at column 1, lines 32-60. Rosenberg also shows the determining if the user indicates a transition into the control zone and a transition out of the control zone (column 4, lines 50-64, transition into the control zone is the step of zooming into the displayed view and transition out the control zone is the step of zooming out back the original view.)

Response to Arguments

Regarding independent claim 1, Applicant argues there is no "motivation to combine Rosenberg and Snibbe et al." However, the Examiner does not agree. While Rosenberg teaches force-feed back on the document view when user interacts on it, Snibbe provides the haptic feedback to control interface interactions. The motivation is to reduce the requirement for visual attention for control of scrolling of the display.

Regarding claims 3 and 5, Applicant has argued Snibbe does not teach "a computer representations of documents". However, Snibbe teaches the feature at column 3, lines 62-67 "a user interacts with an environment using the haptic interface device" and column 6, lines 41-55 "an environment can be a visual and/or audio recording, a spreadsheet, a still photographic image, a graphic representation of objects…..". The user can scroll the spreadsheet document by user device.

Regarding claim 13, Applicant also argues in Snibbe et al. there is no teaching of "haptic boundaries associated with control portions". However, in combination of Rosenberg and Snibbe et al., they teach the feature. Rosenberg shows the control portion by control of scrolling of the display at column 4, lines 51-63 "The resistive force is preferably a restoring force having a magnitude proportional to a magnitude of the deviation from the local origin….The isometric function can include such tasks as scrolling a displayed document, panning a displayed view, or zooming a display view…the host computer may display movement of

the user-controlled graphical object corresponding to the deviation of the physical object". Snibbe et al. shows the user's interaction with an environment with the haptic interface device being associated column 6, lines 6-55. It is clear that both of the references show the haptic feedback to control interface interactions.

Regarding claims 21-23, Applicant has argued the references do not teach or suggest "a three-dimensional control zone". Rosenberg teaches the controlling a zone such as scrolling a document or panning or zooming a displayed view. Also Rosenberg teaches the three-dimensional control zone at column 1, lines 40-55 "Most GUI's are currently 2-dimensional as displayed on a computer screen' however, three dimensional GUI's that present simulated 3-D environments on a 2-D screen can also be provided....The user may provide input to control a 3-D view of the graphical object can be considered the view displayed on the video screen. The user can manipulate the interface device to move the view..." Rosenberg also shows the determining if the user indicates a transition into the control zone and a transition out of the control zone (column 4, lines 50-64, transition into the control zone is the step of zooming into the displayed view and transition out the control zone is the step of zooming out back to the original view.)

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires fax a response, (703) 746-7238, may be used for formal After Final communications, (703) 746-7239 for Official communications, or (703) 746-4395 for Non-Official or draft communications. NOTE, A Request for Continuation (Rule 60 or 62) cannot be faxed.

Please label "PROPOSED" or "DRAFT" for information facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mylinh Tran whose telephone number is (703) 308-1304. The examiner can normally be reached on Monday-Thursday from 8.00AM to 6.30PM

If attempt to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Kristine Kincaid, can be reached on (703) 308-0640,

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Mylinh Tran

Art Unit 2174

Kristine Kincaid

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